

CLAIMS:

1. A method of treating a human in need of cancer treatment, comprising administering a composition comprising greater than 0.5 weight percent based on the total weight of the composition of wogonin, isoliquiritigenin, coumestrol, their pharmaceutically acceptable salts and esters, their selectively substituted analogs, or a combination of one or more of the foregoing compounds.

2. ~~The method of Claim 1, wherein the cancer is prostate cancer, breast cancer, endometrial cancer, colon cancer, lung cancer, bladder cancer, testicular cancer, ovarian cancer, thyroid cancer, or bone cancer~~

3. The method of Claim 1, wherein the composition comprises a compound selected from the group consisting of wogonin, a pharmaceutically acceptable salt or ester of wogonin, a selectively substituted analog of wogonin, or a combination of one or more of the foregoing compounds.

4. The method of Claim 3, wherein the composition comprises a glycoside of wogonin; a selectively substituted analog of wogonin selected from the group consisting of genistein, biochanin, prunetin, scutellarein, daidzin, luteolin, apigenin, acacetin, 3,6,4-trihydroxyflavone, 7,3-dihydroxy-4,1-dimethoxy-isoflavone, 3R-2',3'-dihydroxy-7,4-dimethoxy-isoflavone; or a combination of one or more of the foregoing compounds.

5. The method of Claim 3, wherein the composition comprises an extract of an herb in the family *Scutellaria*.

6. The method of Claim 3, wherein treating comprises administering a dosage of about 0.001 mg/kg/day to about 300 mg/kg/day of wogonin.

7. The method of Claim 3, wherein the composition further comprises isoliquiritigenin, coumestrol, or a combination of one or more of the foregoing compounds.

8. The method of Claim 1, wherein the composition comprises a compound selected from the group consisting of isoliquiritigenin, a pharmaceutically acceptable salt or ester of isoliquiritigenin, a selectively substituted analog of isoliquiritigenin, or a combination of one or more of the foregoing compounds.

9. The method of Claim 8, wherein the composition comprises phloretin, 4,2,4'-trihydroxychalcone, or a combination of one or more of the foregoing compounds.

10. The method of Claim 8, wherein the composition comprises an extract of *Glycyrrhiza uralensis*, *Glycyrrhiza glabra* or a combination of one or more of the foregoing compounds.

11. The method of Claim 8, wherein the composition further comprises wogonin, coumestrol, or a combination of one or more of the foregoing compounds.

12. The method of Claim 8, wherein treating comprises administering a dosage of about 0.001 mg/kg/day to about 300 mg/kg/day of isoliquiritigenin.

13. The method of Claim 1, wherein the composition comprises a compound selected from the group consisting of coumestrol, a pharmaceutically acceptable salt or ester of coumestrol, a selectively substituted analog of coumestrol, a, or a combination of one or more of the foregoing compounds.

14. The method of Claim 13, wherein the composition comprises an extract of a plant selected from the group consisting of *Taraxacum mongolicum*, *Medicago sativa*, *Brassica oleracea*, or *Eclipta prostrata* and combinations of one or more of the foregoing plant extracts.

15. The method of Claim 13, wherein the composition further comprises wogonin, isoliquiritigenin, or a combination of one or more of the foregoing compounds.

16. The method of Claim 13, wherein treating comprises administering a dosage of about 0.001 mg/kg/day to about 300 mg/kg/day of coumestrol.

17. The method of Claim 1, wherein the composition further comprises an anti-cancer agent.

18. The method of Claim 17, wherein the anti-cancer agent is selected from the group consisting of oridonin, indirubin, taxol, cis-platin, camptothecin, vincristine, monocrotaline, Maytansine, homoharringtonine, colchicine, irisquinone A, irisquinone B, irisquinone C, acronycine, matrin, oxymatrin, curcumin, paricine, pariphyllin, and combinations comprising one or more of the foregoing anti-cancer agents.

19. The method of Claim 17, wherein the composition further comprises
an immune stimulant.

20. The composition of Claim 19, wherein the immune stimulant is selected from the group consisting of ginsenosides, ferulic acid, mannan, synanthrin, eleutheroside A, eleutheroside B, eleutheroside C, eleutheroside D, eleutheroside E, gynoside, beta-pachyman, inulin, glycoproteins, interferones, γ -globulins, extracts of *Ganoderma lucidum*, extracts of *Coriolus versicolor*, extracts of *Poria cocos*, and combinations comprising one or more of the foregoing immune stimulants.

21. A composition, comprising:

greater than or equal to about 0.5 weight percent based on the total weight of the composition of a compound selected from wogonin, isoliquiritigenin, coumestrol, their pharmaceutically acceptable salts or esters, their selectively substituted analogs, and combinations comprising one or more of the foregoing compounds; and

at least one anti-cancer agent.

22. The composition of Claim 21, wherein the anti-cancer agent is selected from the group consisting of oridonin, indirubin, taxol, cis-platin, camptothecin, vincristine, monocrotaline, Maytansine, homoharringtonine, colchicine, irisquinone A, irisquinone B, irisquinone C, acronycine, matrin, oxymatrin, curcumin, paricine, pariphyllin, and combinations comprising one or more of the foregoing anti-cancer agents.

23. The composition of Claim 21, wherein the anti-cancer agent comprises: an extract of *Rabdosia rubescens*; and an extract of a plant selected from the group consisting of *Panax pseudo-ginseng* Wall, *Ganoderma lucidum* Karst, *Scutellaria baicalensis* Georgi, *Glycine max*, *Curcuma longa*, and combinations comprising at least one of the foregoing plants.

24. The composition of Claim 23, wherein the anti-cancer agent comprises:

about 1 to about 10 parts by weight of an extract of *Rabdosia rubescens*;

about 10 to about 40 parts by weight of an extract of *Panax pseudo-ginseng* Wall;

about 100 to about 500 parts by weight of an extract of *Ganoderma lucidum* Karst;

about 10 to about 100 parts by weight of an extract of *Scutellaria baicalensis* Georgi;

about 10 to about 100 parts by weight of an extract of *Glycine max*; and

about 10 to about 100 parts by weight of an extract of *Curcuma longa*.

25. The composition of Claim 21, wherein the anti-cancer agent comprises: an extract of *Humulus lupulus*; and an extract of a plant selected from the group consisting of *Panax pseudo-ginseng* Wall, *Ganoderma lucidum* Karst, *Scutellaria baicalensis* Georgi, *Glycine max*, *Curcuma longa*, and combinations comprising one or more of the foregoing plants.

26. The composition of Claim 25, wherein the anti-cancer agent comprises:

about 1 to about 10 parts by weight of an extract of *Humulus lupulus*;

about 10 to about 40 parts by weight of an extract of *Panax pseudo-ginseng*
Wall;

about 100 to about 500 parts by weight of an extract of *Ganoderma lucidum*
Karst;

about 10 to about 100 parts by weight of an extract of *Scutellaria baicalensis*
Georgi;

about 10 to about 100 parts by weight of an extract of *Glycine max*; and

about 10 to about 100 parts by weight of an extract of *Curcuma longa*.

27. The composition of Claim 21, further comprising an immune stimulant.

28. The composition of Claim 27, wherein the immune stimulant is selected from the group consisting of ginsenosides, ferulic acid, mannan, synanthrin, eleutheroside A, eleutheroside B, eleutheroside C, eleutheroside D, eleutheroside E, gynoside, beta-pachyman, inulin, glycoproteins, interferones, γ -globulins, extracts of *Ganoderma lucidum*, extracts of *Coriolus versicolor*, extracts of *Poria cocos*, and combinations comprising one or more of the foregoing immune stimulants.

29. A composition, comprising:

a compound selected from the group consisting of wogonin, isoliquiritigenin, coumestrol, and combinations comprising one or more of the foregoing compounds;

oridonin; and

beta-pachyman.

30. A composition, comprising:

about 1 to about 30 weight percent of wogonin, isoliquiritigenin, coumestrol, or a combination comprising one or more of the foregoing compounds;

about 0.1 to about 5 weight percent of oridonin; and

about 20 to about 90 weight percent of beta-pachyman; .

wherein all weight percents are based on the total weight of the composition.

31. A method of treating a human in need of treatment for an estrogen-related disorder, comprising administering a composition comprising greater than 0.5 weight percent based on the total weight of the composition of wogonin, its pharmaceutically acceptable salts and esters, its selectively substituted analogs, or a combination of one or more of the foregoing compounds.

32. The method of Claim 31, wherein the estrogen-related disorder is selected from the group consisting of bone loss, bone fractures, osteoporosis, glucocorticoid induced osteoporosis, Paget's disease, abnormally increased bone turnover, periodontal disease, tooth loss, rheumatoid arthritis, osteoarthritis, periprosthetic osteolysis, osteogenesis imperfecta, metastatic bone disease, hypercalcemia of malignancy, cartilage degeneration, endometriosis, uterine fibroid disease, hot flashes, cardiovascular disease, impairment of cognitive function, cerebral degenerative disorders, restenosis, gynecomastia, vascular smooth muscle cell proliferation, obesity, incontinence, the symptoms of menopause, and combinations comprising one or more of the foregoing disorders.

33. The method of Claim 31, wherein the wogonin comprises a glycoside of wogonin; a selectively substituted analog of wogonin selected from the group consisting of genistein, biochanin, prunetin, scutellarein, daidzin, luteolin, apigenin, acacetin, 3,6,4-trihydroxyflavone, 7,3-dihydroxy-4,1-dimethoxy-isoflavone, 3R-2',3'-dihydroxy-7,4-dimethoxy-isoflavone; or a combination of one or more of the foregoing compounds.

34. The method of Claim 31, wherein treating comprises administering a dosage of about 0.01 mg/kg/day to about 600 mg/kg/day of wogonin.

35. The method of Claim 31, wherein the composition further comprises isoliquiritigenin, coumestrol, or a combination of one or more of the foregoing compounds.
